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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,637	12/20/2000	Pantelis Monogioudis	12-31	5635

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EXAMINER	
MILLER, BRANDON J	

ART UNIT	PAPER NUMBER
2683	

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18

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/741,637	Applicant(s) MONOGIOUDIS ET AL.	
	Examiner Brandon J Miller	Art Unit 2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 June 2004* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-9 and 11-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-9, and 11-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/17/04 has been entered.

Response to Amendment

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson in view of Corbett.

Regarding claim 1 Andersson teaches a method for use in wireless equipment, including receiving user channel transmit power information from base stations involved in a soft handoff with user equipment (see col. 1, lines 54-58 and col. 8, lines 22-37). Andersson teaches receiving information from the user equipment, the information received from the user equipment comprises a value representative of difference in a signal quality parameter determined by the user equipment as the amount by which a signal quality parameter of one or more user channel signals received at the user equipment differs from a target signal quality

parameter, wherein the wireless equipment determines a transmit power level for use by the base stations as a function of the received user channel transmit power information and the received information from the user equipment (see col. 8, lines 60-67 and col. 9, lines 1-10). Andersson does not specifically teach a signal quality parameter that is an excess signal-to-noise ratio value or determining a reference user transmit power level. Corbett teaches a signal quality parameter that is an increased signal-to-noise ratio value (see col. 2, lines 1-2). Corbett teaches wireless equipment determining a reference user transmit power level (see col. 3, lines 23-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to specifically include an excess signal-to-noise ratio value and determining a reference user transmit power level because this would allow for improved determination of a reference power level for diversity handover base stations in downlink transmit power control.

Regarding claim 9 Andersson teaches a apparatus for use in wireless equipment, including receiving user channel transmit power information from base stations involved in a soft handoff with user equipment and receiving information from user equipment (see col. 1, lines 54-58 and col. 8, lines 22-37). Andersson teaches a controller for use in the user equipment (see col. 8, lines 21-37). Andersson teaches determining a transmit power level for use by a base station as a function of the received user channel transmit power information and received information from the user equipment, wherein the information received from the user equipment comprises a difference in a signal quality parameter determined as the amount by which a signal quality parameter of one or more user channel signals received at the user equipment differs with a target signal quality value (see col. 8, lines 60-67 and col. 9, lines 1-10). Andersson does not specifically teach a processor for determining a reference user transmit power level for use by

the base station, or a signal quality parameter that is an excess signal-to-noise ratio value. Corbett teaches a processor for determining a reference user transmit power level for use by the base station (see col. 3, lines 23-26 and col. 9, lines 17-20). Corbett teaches a signal quality parameter that is an increased signal-to-noise ratio value (see col. 2, lines 1-2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to specifically include a processor for determining a reference user transmit power level for use by the base station, or a signal quality parameter that is an excess signal-to-noise ratio value because this would allow for improved determination of a reference power level for diversity handover base stations in downlink transmit power control.

Claims 3-8 and 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson in view of Corbett and Toskala.

Regarding claim 3 Andersson and Corbett teach a device as recited in claim 1 except a value representative of the excess signal-to-noise ratio of a user channel signal received from one of the base stations that is stronger than the user channel signal received from another base station. Toskala teaches a value representative of an excess signal quality parameter of a user channel received from one of the base stations that is stronger than the user channel signal received from another base station (see col. 5, lines 23-30 and col. 8, lines 30-40). Corbett does teach a signal quality parameter that is an increased signal-to-noise ratio value (see col. 2, lines 1-2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a value representative of the excess signal-to-noise ratio of a user channel signal received from one of the base stations that is stronger than the user

channel signal received from another base station because this would allow for an improved power control technique that adapts to rapidly changing radio conditions and situations.

Regarding claim 4 Andersson teaches a method for use in wireless equipment, comprising receiving user channel transmit power information from base stations involved in a soft handoff with user equipment (see col. 1, lines 54-58 and col. 8, lines 22-37). Andersson teaches a signal quality parameter of the signal received from an identified base station (see col. 8, lines 60-67). Andersson teaches determining a downlink power from a received user channel transmit power information and received information from the user equipment; and transmitting a determined downlink reference power to a base station (see col. 8, lines 60-67 and col. 9, lines 1-10). Andersson does not specifically teach an identifier of a base station with a received signal at user equipment that is stronger than the received signal of other base stations and a signal-to-noise ratio value of the signal received from the identified base station or transmitting and determining a reference user transmit power level. Toskala teaches an identifier of a base station with a received signal at the user equipment that is stronger than the received signal of other base stations (see col. 7, lines 1-2 and col. 8 lines 1-3 & 21-45). Corbett teaches wireless equipment determining a reference user transmit power level (see col. 3, lines 23-26). Corbett teaches a signal quality parameter that is a signal-to-noise ratio value (see col. 2, lines 1-2). It would have been obvious at the time the invention was made to make the invention adapt to include transmitting and determining a reference user transmit power level because this would allow for correct transmit power to be selected more efficiently by obtaining a required signal-to-noise ratio in communications between user equipment and several base stations.

Regarding claim 5 Andersson, Corbett, and Toskala teach a device as recited in claim 3 and is rejected given the same reasoning as above.

Regarding claim 6 Andersson teaches a method for use in wireless equipment during in a soft handoff of user equipment with a number of base stations (see col. 1, lines 54-58 and col. 8, lines 22-37). Andersson teaches calculating, at the user equipment, a signal quality parameter of the signal received from an identified base station (see col. 8, lines 60-67 and col. 9, lines 1-3). Andersson teaches transmitting a calculated signal quality measurement from the user equipment (see col. 8, lines 60-67 and col. 9, lines 1-3). Andersson does not specifically teach identifying, at the user equipment, a base station with a received signal at the wireless equipment that is stronger that the received signal of one or more of the other base stations, transmitting the identity of an identified base station from the user equipment to a control point of the wireless system, or a signal-to-noise ratio value. Toskala teaches identifying, at the user equipment, a base station with a received signal at the wireless equipment that is stronger that the received signal of one or more of the other base stations (see col. 7, lines 1-2, col. 8 lines 1-3 & 21-45, and FIG. 11). Toskala teaches transmitting the identity of an identified base station from the user equipment to a control point of the wireless system (see col. 8, lines 35-45, FIG. 10 and FIG. 11). Corbett teaches a signal quality parameter that is a signal-to-noise ratio value (see col. 2, lines 1-2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include identifying, at the user equipment, a base station with a received signal at the wireless equipment that is stronger that the received signal of one or more of the other base stations, transmitting the identity of an identified base station from the user equipment to a control point of the wireless system, or a signal-to-noise ratio value because

this would allow for correct transmit power to be selected more efficiently by obtaining a required signal-to-noise ratio in communications between user equipment and several base stations.

Regarding claim 7 Corbett teaches a common control point (see col. 5, lines 1-7).

Regarding claim 8 Andersson, Corbett, and Toskala teach a device as recited in claim 3 and is rejected given the same reasoning as above.

Regarding claim 11 Andersson, Corbett, and Toskala teach a device as recited in claim 3 and is rejected given the same reasoning as above.

Regarding claim 12 Andersson teaches an apparatus for use in wireless equipment, comprising a transceiver for receiving user channel transmit power information from base stations involved in a soft handoff with user equipment (see col. 1, lines 54-58 and col. 8, lines 22-37). Andersson teaches a signal quality parameter determined by user equipment for the user channel signal received from a base station (see col. 8, lines 60-67 and col. 9, lines 1-3). Andersson teaches determining a downlink power from a received user channel transmit power information and received information from the user equipment; and transmitting a determined downlink reference power to a base station (see col. 8, lines 60-67 and col. 9, lines 1-10). Andersson does not specifically teach an identifier of a base station with a received signal at user equipment that is stronger than the received signal of other base stations and a signal-to-noise ratio value of the signal received from the identified base station, a processor for determining a reference user transmit power, or transmitting and determining a reference user transmit power level. Toskala teaches an identifier of a base station with a received signal at user equipment that is stronger than the received signal of other base stations (see col. 7, lines 1-2 and col. 8 lines 1-3

& 21-45). Corbett teaches a processor for determining a reference user transmit power level for use by the base station (see col. 3, lines 23-26 and col. 9, lines 17-20). Corbett teaches a signal quality parameter that is a signal-to-noise ratio value (see col. 2, lines 1-2). It would have been obvious at the time the invention was made to make the invention adapt to include transmitting and determining a reference user transmit power level because this would allow for correct transmit power to be selected more efficiently by obtaining a required signal-to-noise ratio in communications between user equipment and several base stations.

Regarding claim 13 Andersson, Corbett, and Toskala teach a device as recited in claim 3 and is rejected given the same reasoning as above.

Regarding claim 14 Andersson teaches an apparatus for use in wireless equipment during in a soft handoff of user equipment with a number of base stations (see col. 1, lines 54-58 and col. 8, lines 22-37). Andersson teaches calculating a signal quality parameter of the signal received from an identified base station (see col. 8, lines 60-67 and col. 9, lines 1-3). Andersson does not specifically teach a processor, identifying a base station with a received signal at the wireless equipment that is stronger that the received signal of one or more of the other base stations, transmitting the identity of an identified base station to a control point of the wireless system, or a signal-to-noise ratio value. Toskala teaches identifying a base station with a received signal at the wireless equipment that is stronger that the received signal of one or more of the other base stations (see col. 7, lines 1-2, col. 8 lines 1-3 & 21-45, and FIG. 11). Toskala teaches transmitting the identity of an identified base station to a control point of the wireless system (see col. 8, lines 35-45, FIG. 10 and FIG. 11). Corbett teaches a processor for determining a power level (see col. 3, lines 23-26 and col. 9, lines 17-20). Corbett teaches a

signal quality parameter that is a signal-to-noise ratio value (see col. 2, lines 1-2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include a processor, identifying a base station with a received signal at the wireless equipment that is stronger that the received signal of one or more of the other base stations, transmitting the identity of an identified base station to a control point of the wireless system, or a signal-to-noise ratio value because this would allow for correct transmit power to be selected more efficiently by obtaining a required signal-to-noise ratio in communications between user equipment and several base stations.

Regarding claim 15 Corbett teaches a device as recited in claim 7 and is rejected given the same reasoning as above.

Regarding claim 16 Andersson, Corbett, and Toskala teach a device as recited in claim 3 and is rejected given the same reasoning as above.

Regarding claim 17 Andersson teaches a signal quality parameter of the signal received from a base station at user equipment (see col. 8, lines 60-67 and col. 9, lines 1-3). Andersson does not specifically teach a transmission frame representing data embodied in a wireless transmission signal, identifying a base station with a received signal at the wireless equipment that is stronger that the received signal of one or more of the other base stations, or a signal-to-noise ratio value. Toskala teaches a transmission frame representing data embodied in a wireless transmission signal (see col. 11, lines 42-50). Toskala teaches an identifier for identifying a base station with a received signal at the wireless equipment that is stronger that the received signal of one or more of the other base stations (see col. 7, lines 1-2, col. 8 lines 1-3 & 21-45, and FIG. 11). Corbett teaches a signal quality parameter that is a signal-to-noise ratio value (see col. 2,

lines 1-2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include a processor, identifying a base station with a received signal at the wireless equipment that is stronger that the received signal of one or more of the other base stations, transmitting the identity of an identified base station to a control point of the wireless system, or a signal-to-noise ratio value because this would allow for correct transmit power to be selected more efficiently by obtaining a required signal-to-noise ratio in communications between user equipment and several base stations.

Regarding claim 18 Andersson teaches a radio resource control based protocol (see col. 7, lines 64-67).

Regarding claim 19 Toskala teaches physical layer signaling (see col. 2, lines 9-11).

Regarding claim 20 Andersson, Corbett, and Toskala teach a device as recited in claim 3 except a value representative of the excess signal-to-noise ratio for the strongest received user channel transmit power signal. Toskala teaches a value representative of an excess signal quality parameter for the strongest received user channel transmit power signal (see col. 5, lines 23-30 and col. 8, lines 30-40). Corbett does teach a signal quality parameter that is an increased signal-to-noise ratio value (see col. 2, lines 1-2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a value representative of the excess signal-to-noise ratio for the strongest received user channel transmit power signal because this would allow for an improved power control technique that adapts to rapidly changing radio conditions and situations.

Response to Arguments

Applicant's arguments with respect to claims 1, 3-9, and 11-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Soliman U.S Patent No. 6,490,460 discloses forward and reverse link power control using position and mobility information.

Bark et al. U.S Patent No. 6,628,956 discloses adaptive power control in radio communications systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J Miller whose telephone number is 703-305-4222. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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July 22, 2004

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